

**PROTECTIVE COVERING AND METHOD OF
MANUFACTURING**

RELATED APPLICATION DATA:

[0001] This application is a continuation-in-part of U.S. Application Serial No. 10/606,083, filed June 25, 2003, pending, which is incorporated herein in its entirety.

FIELD OF THE INVENTION:

[0002] The present invention relates generally to protective coverings, and more particularly to a protective covering for protecting finished work and other surfaces during construction, moving, or other activities, and a method of manufacturing the protective covering.

BACKGROUND OF THE INVENTION:

[0003] The process of building out an area or constructing a building occurs in many phases. During this process, a number of different types of workers are required and it may be necessary to complete the construction in steps. As a result, frequently contractors damage door frames, stairs, and finished work in the process of completing other tasks and moving in and out heavy equipment.

[0004] Presently, contractors solve this problem by covering all surfaces, e.g., furniture, millwork, and finished work, with construction paper, taping adjacent pieces of the paper together, and then covering the paper with hardboard panels, e.g., panels sold under the trademark Masonite®. This process is very labor intensive. Also, hardboard paneling typically does not bend or fold to cover corners or intricate works.

[0005] There have been attempts to solve the specific problem of covering door frames. One device includes opposing contact edges which extend around the edge of a doorway to contact and grip opposing walls adjacent the doorway. While the device does protect doorways, it is too specific and not easily adaptable. For instance, different sizes have to be purchased for different size door frames.

SUMMARY OF THE INVENTION:

[0006] One aspect of the present invention is a protective covering for use during construction, including a protective backing layer having front and back surfaces defined by opposing top and

bottom edges and opposing left and right side edges, the protective backing layer being formed from a first material, a plurality of protective strips attached to the protective backing layer, the plurality of protective strips being arranged so as to provide uncovered portions of the front surface between each of the strips, the protective strips being formed from a second material, and one or more flap portions proximate at least one of the top, bottom, left, and right edges by a portion of the front surface that is not covered by the plurality of protective strips, the flap portion including an adhesive and a removable topsheet.

[0007] Another aspect of the present invention is a protective covering for use during construction including a protective backing layer formed from a first material, and a plurality of protective portions attached to and covering portions of the protective backing layer, the plurality of protective portions being arranged so that portions of the front surface are exposed between each of the protective portions, the protective portions being formed from a second material that is different than the first material.

[0008] A further aspect of the present invention is a protective covering for use during construction including a protective backing layer, a plurality of protective strips attached to and covering portions of the protective backing layer, and one or more flap portions that are not covered by the plurality of protective strips, the one or more flap portions including an adhesive.

[0009] Still another aspect of the present invention is a method of protecting surfaces during construction, moving, or other activities, including the following steps: providing a protective covering including a backing layer and a plurality of hard protective portions attached to the backing layer; fitting the protective covering to the surfaces; and transporting objects across the protective covering.

[0010] Yet another aspect of the present invention is a method of manufacturing a protective covering for use during construction including the following steps: providing a protective backing layer formed from a first material; and attaching a plurality of protective portions to the protective backing layer so as to define a flap portion that is not covered by the plurality of protective portions, the plurality of protective portions being formed from a second material.

[0011] Other features, utilities and advantages of various embodiments of the invention will be apparent from the following more particular description of embodiments of the invention as illustrated in the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS:

[0012] For the purpose of illustrating the invention, the drawings show a form of the invention that is presently preferred. However, it should be understood that the present invention is not limited to the precise arrangements and instrumentalities shown in the drawings, wherein:

FIG. 1 is a front isometric view of one embodiment of the present invention;

FIG. 2 is a section view taken along line 2-2 of FIG. 1;

FIG. 3 is a front isometric view of one embodiment of the present invention;

FIG. 4 is a section view taken along line 4-4 of FIG. 3;

FIG. 5 is a front isometric view of one embodiment of the present invention;

FIG. 6 is a flowchart of the steps of a method of protecting surfaces during construction or moving activities according to one embodiment of the present invention; and

FIG. 7 is a flowchart of the steps of a method of manufacturing one embodiment of the present invention.

DETAILED DESCRIPTION OF THE DRAWINGS:

[0013] Referring now to the drawings, as illustrated in FIGS. 1 and 2, one embodiment of the present invention is a protective covering 10 for protecting surrounding items, i.e., walls, floors, furniture, etc., during construction activities or when moving such items. Covering 10 includes a protective backing layer 12 having a front side 14, a back side 16, opposing top and bottom edges 17 and 18, respectively, opposing left and right side edges 19 and 20, respectively, and a plurality of protective strips 22 each having a first end 24 and a second end 26. Strips 22 are securely affixed to and covering front side 14.

[0014] Although layer 12 is depicted as a continuous sheet of material in FIG. 1, alternatively, it may take the form of a web, a mesh, a series of strips, or a combination of the above. Layer 12 is formed from a first material, which may include one or a combination of paper or other cellulose materials, plastic, cloth, or any other pliable material. The paper may, for example, be kraft paper, non-reinforced paper, reinforced paper, red rosin paper, or reinforced paper. Optionally, layer 12 may include a first adhesive portion 28 (also referred to as flap portion 28) along left side edge 19 that includes an adhesive for connecting multiple coverings 10 to one another. Any adhesive known within the art including a peel away tape having a removable strip covering or a first topsheet 29 may be utilized. In one embodiment, layer 12 has an overall width 30 of approximately six inches to eight feet, which is generally, but not always, selected to be at least slightly longer than the length of

strips 22. Back side 16 of layer 12 may also include a second adhesive portion 31, which is similar to first adhesive portion 28, for removably adhering covering 10 to underlying surfaces. Adhesive portions 31 may be segmented or continuous strips running the length or width of layer 12 or may be discrete portions positioned in any suitable location. A second topsheet (not shown) is often provided to cover adhesive portion 31.

[0015] Typically, strips 22 are arranged in a substantially parallel fashion with first end 24 abutting or nearly abutting right side edge 20 to allow covering 10 to be rolled-up, e.g., like a carpet. Strips 22 are generally arranged so portions of front side 14 are exposed between each of the strips. The portion of front side 14 that is exposed and the particular spacing between each of strips 22 are influenced by the application. For example, in an instance where wheeled objects are transported over strips 22, the wheel diameter and width will affect the spacing between the strips. Referring now to FIG. 2, in one embodiment, strips 22 are affixed to layer 12 using an adhesive 32. In other embodiments strips 22 may be joined with layer 12 using two-sided adhesive tape, screws, rivets, tacks or other similar fasteners. Strips 22 are fabricated from a second material that typically differs from the first material used for layer 12. The material used for strips 22 is typically relatively dense, may be cut fairly easily with hand or power saws, and is relatively resistant to splitting or breaking apart when subjected to forces of the type routinely encountered in construction. Suitable materials for the second material may include one or more of the following: Masonite® panels, plastic, plywood, polymers, Corex® panels, homasote, metal, cardboard, and sound board. Typically, strips 22 have a length 33 of approximately six inches to eight feet, a width 34 of approximately 1/2 inch to 24 inches, and a thickness or height 36 of approximately 1/16 inch to one inch. Typically, strips 22 are spaced about one to six inches from left side edge 19. This spacing, i.e., width 38, provides space for adhesive portion 28 and topsheet 29. In FIG. 1, strips 22 are evenly spaced from one another, although even spacing is not required. Strips 22 are typically spaced at a distance between 1/8 to four inches from one another. In other embodiments, strips 22 may not have any spacing between one another.

[0016] Referring now to FIGS. 3 and 4, where elements similar to those in the embodiment illustrated in FIG. 1 are numbered similarly, an alternative protective covering 40 of the present invention is illustrated. Covering 40 is virtually identical to covering 10 with the exception that covering 40 further includes a top layer or second protective backing layer 42 that is adhered to the surface of strips 22 opposite the surface joined with layer 12 using an adhesive 44, which is similar to or the same as adhesive 32 described above. Layer 42 provides additional protection to the

underlying surface and allows covering 40 to be applied with indifference to which side, i.e., bottom side 16 of layer 12 or a top side 43 of layer 42, is placed in contact with the underlying surface. Optionally, covering 40 may include a second portion having adhesive portion 28 and topsheet 29, which is positioned on the opposite end and opposite side as adhesive portion 28 and topsheet 29 in FIGS. 3 and 4 (not shown).

[0017] FIG. 5 illustrates alternative covering 50 of the present invention. Covering 50 is virtually identical to covering 10 with the exception that instead of strips 22, a plurality of protective portions 52 are adhered to front side 14 of layer 12. Protective portions 52 are typically joined with layer 12 in the same manner as strips 22. Protective portions 52 are typically arranged and positioned in a uniform pattern to ensure that a significant portion of the surface area of front side 14 is covered by the portions. Portions 52 may be formed in any shape that allows covering 50 to be rolled-up or folded, e.g., circular, square, rectangular, or combination of the above. In one embodiment, portions 52 are $\frac{3}{4}$ inch by $\frac{3}{4}$ inch squares having a similar thickness as described above with respect to strips 22. As with strips 22, the spacing of portions 52 is determined according to the specific application.

[0018] In use, protective coverings 10, 40, or 50 are typically transported in rolls to a construction site or a moving site. However, in some instances, protective coverings 10, 40, and 50 may be either folded or provided in smaller pieces and transported in boxes. The coverings are unrolled and fit to surfaces and objects in the area where the construction or moving activities will occur. The coverings may be cut into various sizes to custom-fit certain areas and certain objects. Multiple coverings may be joined together using first adhesive portion 28. The coverings are used in place of sheets formed from Masonite® panels, plastic, plywood, polymers, Corex® panels, homasote, metal, cardboard, sound board, or similar, to protect the surfaces or objects from collateral damage that may result from the construction or moving activities.

[0019] FIG. 6 illustrates the steps of a method 60 of protecting surfaces from damage caused by construction, moving, or other activities. First, at step 62, a piece of protective covering 10 is unrolled or unfolded. Of course, method 60 may also be practiced using either protective covering 40 or protective covering 50. Then, at step 64, protective covering 10 is fitted to the surfaces that are to be protected from damage. This fitting may involve removing pieces of covering 10, which can easily be performed using hand or power saws, snips, or other tools. In some cases, e.g., to cover a light fixture, large pieces of protective covering 10 are cut into one or more smaller pieces during

step 64. In other instances, e.g., to cover flooring, large pieces of protective covering 10 are used in their original form. As illustrated at step 66, in many instances, multiple pieces of protective covering 10 are joined to one another. Typically, during step 66 topsheet 29 is removed from a first piece of protective covering 10 thereby exposing first adhesive portion 28. The edge, i.e., right side edge 20, of a second piece of protective covering 10 is then positioned on top of first adhesive portion 28 thereby joining the first and second pieces of protective portion 10 to one another. Optionally, at step 68, all or the pieces of protective covering 10 are temporarily adhered to the surfaces that are to be protected from damage. Typically, the pieces of protective covering 10 are temporarily adhered to the surfaces using adhesive portions 31, tape or some other non-destructive, temporary, joining material.

[0020] FIG. 7 illustrates the steps for a method 70 of manufacturing a protective covering according to the present invention. First, at step 72, a first protective backing layer 12 is provided. Next, at step 74, it is determined whether first adhesive portion 28 and topsheet 29 should be applied to first protective backing layer 12. If yes, at step 76, adhesive portion 28 and topsheet 29 are applied to a section of surface 14 of first protective backing layer 12. If no, at step 74, or after step 76, a plurality of protective portions, e.g., strips 22, protective portions 52, or portions of other configurations, are joined to a surface 14 of first protective backing layer 12 at step 77. Next, at step 78, it is determined whether a second protective backing layer 42 should be joined with protective portions 22, 52. If no, the process ends. If yes, at step 80, second protective backing layer 42 is joined to protective portions 22, 52 thereby causing the protective portions to be positioned between the first and second protective backing layers 12, 42. Then, at step 82, it is determined whether a second adhesive portion 31 and topsheet should be applied to back side 16 of first protective backing layer 12. If no, the process ends. If yes, at step 84, second adhesive portion 31 and topsheet are applied to back side 16 of first protective backing layer 12 adjacent the side edge opposite first adhesive portion 28. After step 84, the process ends.

[0021] Although the invention has been described and illustrated with respect to exemplary embodiments thereof, it should be understood by those skilled in the art that the foregoing and various other changes, omissions and additions may be made therein and thereto, without parting from the spirit and scope of the present invention.